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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/651,539	08/29/2000	Thomas G. Adams	19927-000510US	9913

20350 7590 07/20/2004

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EXAMINER

TRAN, HAI V

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 07/20/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/651,539

Applicant(s)

ADAMS ET AL.

Examiner

Hai Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 1-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/21/2004 has been entered.

Response to Arguments

Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 17-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The newly added limitations in claims 17 and 27 contain subject matter, which was not described in the specification, for example limitation, "...without being controlled by the microprocessor of the host computer" in claim 17 and "...without being controlled by the host CPU" in claim 27.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 17-21, 27, and 30-31 are rejected under 35 U.S.C. 102(b) as being unpatentable by Ryan (US 5675654).

Claim 17, Ryan discloses a method of processing a transport stream comprising:

The steps of parsing the transport stream to derive multiple elementary streams including associated program identifiers (Col. 3, lines 52-54; Col. 4, lines 55-Col. 5, lines 62);

Using the associated program identifier to assign each stream a DMA channel (Col. 5, lines 35-40; Col. 6, lines 23-56);

Associating each DMA channel with a specific location in the memory of a host computer (Col. 6, lines 23-26); and

Performing DMA transfers of the multiple elementary streams to corresponding locations in the memory of the host computer using the DMA channels without being controlled by the microprocessor of the host computer (Col. 5, lines 12-16; lines 55-Col. 8, lines 20).

Claim 18, Ryan further discloses wherein the multiple elementary streams are transferred between a local memory 318 and the memory (memory data) of the host computer (See Fig. 3; Col. 6, lines 57-32);

Claim 19, Ryan further discloses wherein the multiple elementary streams are transferred between a transport controller 320 and the memory of the host computer (Fig. 3; Col. 6, lines 57-58);

Claim 20, Ryan further discloses wherein the transport controller comprises a FIFO module to which each stream is routed such that stream data are transferred in the order received (Col. 6, lines 56-Col. 7, lines 47);

Claim 21, "wherein the DMA transfer is an automatic programmable transport interface operation wherein data is not buffered in a local memory prior to the transfer to the memory of the host computer" is inherently met by Ryan because the DMA transfer only occurs when the received data is buffered (Col. 6, lines 63-Col. 7, lines 40).

Claim 27, Apparatus claim 27 is analyzed with respect to method claim 17.

Claim 30, apparatus claim 30 is analyzed with respect to method claim 20.

Claim 31, apparatus claim 31 is analyzed with respect to method claim 21.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 22-26 and 28-29 rejected under 35 U.S.C. 103(a) as being unpatentable over Ryan (US 5675654) in view of Lang et al. (US 6188699).

Claims 22 and 23, Ryan does not clearly disclose wherein a context is stored in the local memory for each DMA channel, the context including a current transfer target address, a byte count and a pointer into a data structure in the local memory that contains frame descriptors wherein each frame descriptor contains information relating to the memory in the host computer available to the channel, including a pointer to the starting address of a host memory block, the size of the host memory block, any possible segmentation of the host memory block and a pointer to a next available host memory block; however, Ryan discloses memory allocation for 32 and 16 DMA channels (Col. 7, lines 63-Col. 8, lines 20).

Lang discloses a context is stored in the local memory for each DMA channel, the context including a current transfer target address, a byte count and a pointer into a data structure in the local memory that contains frame descriptors (Fig. 15) wherein each frame descriptor contains information relating to the memory in the host computer available to the channel, including a pointer to the starting address of a host memory block, the size of the host memory block, any possible segmentation

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of the host memory block and a pointer to a next available host memory block (Col. 17, lines 50-Col. 18, lines 25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ryan with Lang, so to provide a method of communicating between a multi-channel network device and a host having host memory with associated buffers for supporting a large number of data links operating at high speeds due to the unacceptably high burden of work placed on the microprocessor (Summary of the invention).

Claims 24-26, Ryan does not clearly disclose wherein the step of transferring the multiple elementary streams to an end user system comprises transferring the multiple elementary streams through an audio-visual/network interface; however, Ryan discloses an end user system is an audio-visual system that receives multiple elementary streams through a channel interface 112 (Fig. 1; Col. 1, lines 5-13).

Lang discloses the step of transferring the multiple elementary streams to an end user system comprises transferring the multiple elementary streams through an audio-visual/network interface (Summary of the invention and Fig. 3-4; el. 10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ryan with Lang, so to provide to user an alternative to receive multiple elementary streams through a network.

Claims 28-29, apparatus claims 28-29 is analyzed with respect to method claims 22-23.

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Contact Fax Information

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or Faxed to: (703) 872-9306

For informal or draft communications, please label "PROPOSED" or "DRAFT"

Hand-delivered responses should be brought to Crystal Park II, 2121
Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Conclusion

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Hai Tran whose telephone number is 703-308-7372.

The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone number for
the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HT:ht
07/08/2004


HAL TRAN
PATENT EXAMINER